

WHAT IS CLAIMED IS:

112 1. A method comprising the steps of: consecutively
depositing a first etch stop layer, a first compound
semiconductor and a second compound semiconductor
5 layer overlying a semiconductor substrate, the first etch
stop layer, the first and second compound semiconductor
layers having different compositions from one another,
etching the first and second compound semiconductor
layers until the etching stops at the first etch stop layer,
10 and forming a semiconductor laser device including the
first etch stop layer and the first and second compound
semiconductor layers.

2. The method as defined in claim 1 further comprising
15 the steps of:

depositing a second etch stop layer having etching
selectivity with respect to the first etch stop layer
overlying the semiconductor substrate before the first
etch stop layer depositing step; and

20 etching the first etch stop layer using the second
etch stop layer.

3. A semiconductor laser device fabricated by the
method as defined in claim 1.

4. The semiconductor laser device as defined in claim 3, wherein the first compound semiconductor layer contains at least aluminum, the second compound semiconductor layer contains neither of aluminum nor phosphorus, and the first etch stop layer contains at least phosphorus.

5. The semiconductor laser device as defined in claim 1, wherein the first compound semiconductor layer, the second compound semiconductor layer and the first etch stop layer are an AlGaAs layer, a GaAs layer and an InGaP layer, respectively.

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